



OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**Store 5 - Cross Lanes**

Machine Id  
**JOHN DEERE E-50**

Component  
**Hydraulic System**

Fluid  
**JOHN DEERE ZINC-FREE HYDRAULIC OIL 46 (63 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC004918</b>	LEC0026609	LEC0004919
Sample Date		Client Info		<b>06 May 2024</b>	27 Sep 2022	03 Sep 2019
Machine Age	hrs	Client Info		<b>5267</b>	4025	1167
Oil Age	hrs	Client Info		<b>5267</b>	4025	1167
Filter Age	hrs	Client Info		<b>600</b>	4025	1167
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>15</b>	8	16
Iron	ppm	ASTM D5185m	>32	<b>5</b>	7	3
Chromium	ppm	ASTM D5185m	>9	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185m	>28	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>0</b>	11	2
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

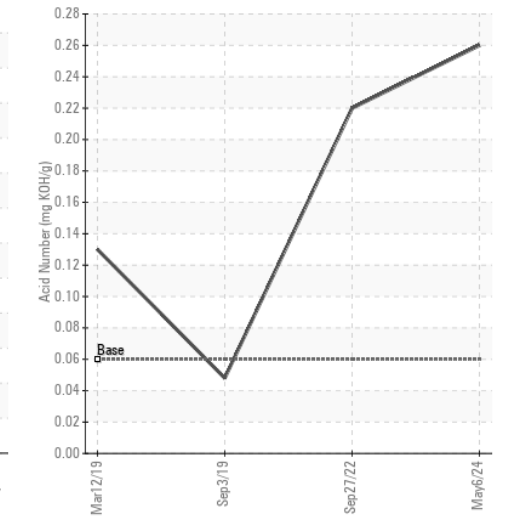
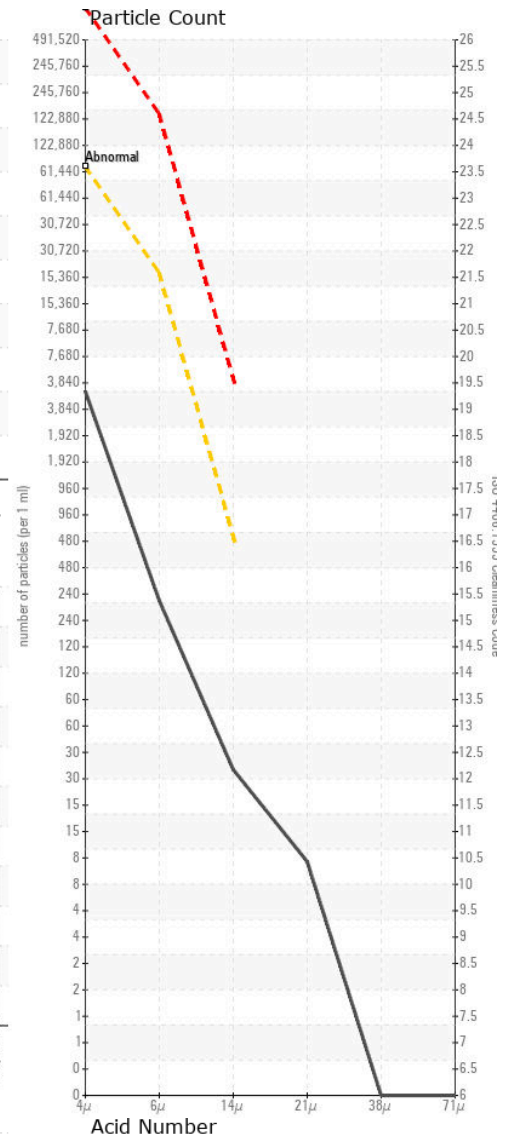
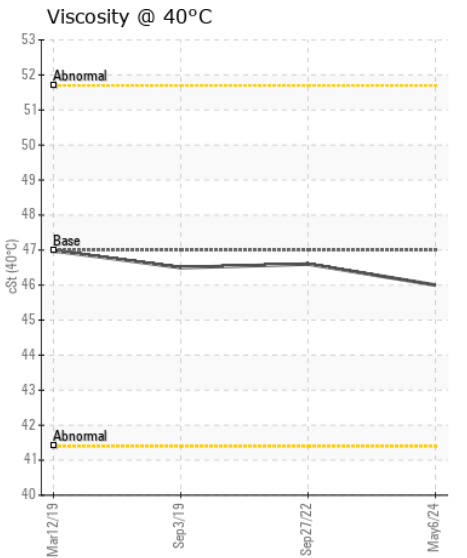
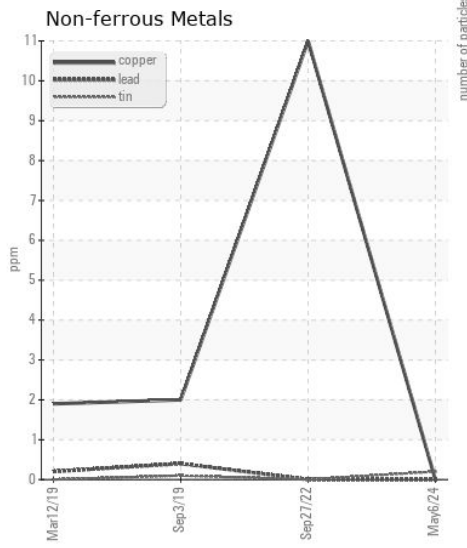
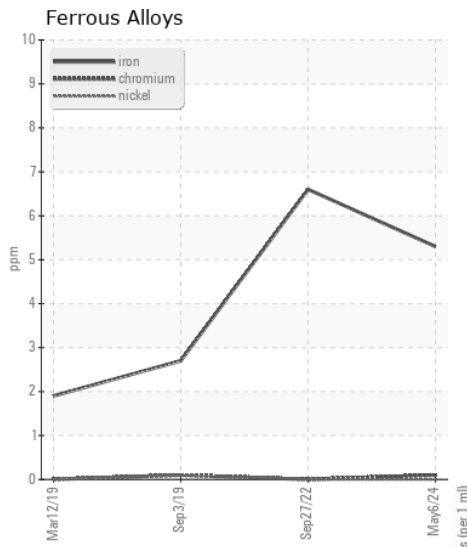
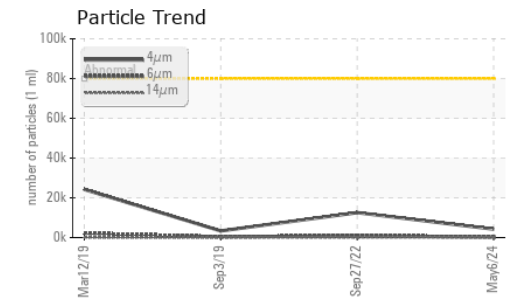
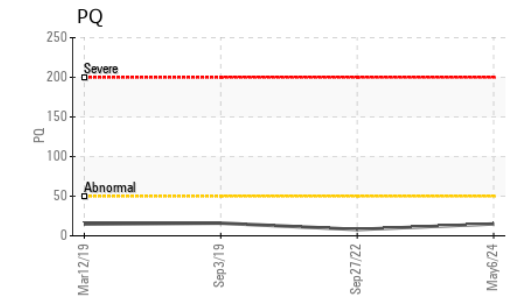
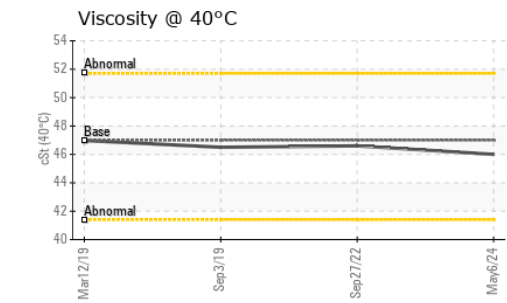
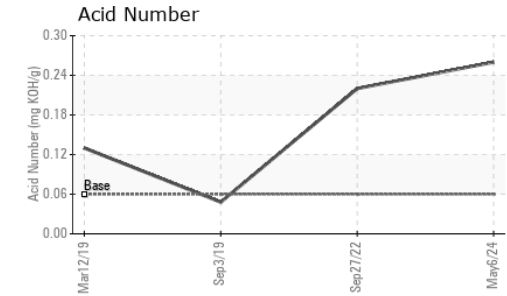
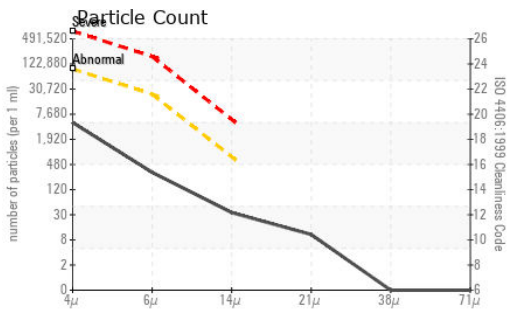
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	<b>2</b>	2	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	1
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>4241</b>	12552	3350
Particles >6µm		ASTM D7647	>20000	<b>274</b>	921	356
Particles >14µm		ASTM D7647	>640	<b>30</b>	27	20
Particles >21µm		ASTM D7647	>160	<b>9</b>	6	6
Particles >38µm		ASTM D7647	>40	<b>0</b>	1	2
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	1
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>19/15/12</b>	21/17/12	19/16/11
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	<b>&lt;1</b>	<1	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	<1
Barium	ppm	ASTM D5185m		<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>5</b>	6	1
Calcium	ppm	ASTM D5185m		<b>13</b>	25	42
Phosphorus	ppm	ASTM D5185m		<b>463</b>	565	535
Zinc	ppm	ASTM D5185m		<b>28</b>	40	40
Sulfur	ppm	ASTM D5185m		<b>119</b>	112	145
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.26</b>	0.22	0.048
Visc @ 40°C	cSt	ASTM D445	47	<b>46.0</b>	46.6	46.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0049418 **Received** : 14 May 2024  
**Lab Number** : 06178597 **Tested** : 15 May 2024  
**Unique Number** : 11029923 **Diagnosed** : 16 May 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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